Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A semiconductor light-emitting device, comprising:

a substrate;

an n-type semiconductor layer formed on the substrate;

a recess formed on a major surface of the n-type semiconductor layer, the recess having a planar bottom surface with a crystal orientation and planar sidewalls each having a different crystal ~~planar~~ orientation from the bottom surface;

an active layer conformably formed on the n-type semiconductor layer such that a portion of the active layer is located within the recess and a portion of the active layer is located outside the recess; and,

a p-type semiconductor layer formed on the active layer such that a portion of the p-type layer is formed on the portion of the active layer located within the recess, wherein the portion of the p-type layer has a bottom surface having the same crystal ~~planar~~ orientation as the bottom surface of the recess and sidewalls having the same crystal ~~planar~~ orientation as the sidewalls of the recess.

2. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein the p-type semiconductor layer, the n-type semiconductor layer, and the active layer each comprise a gallium nitride layer.

3. (Canceled)

4. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein the active layer has a quantum well structure including a well layer comprising gallium nitride and indium.

5. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein at least one surface of the n-type semiconductor layer in contact with the active layer defines the major surface of the n-type semiconductor layer.

6. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein at least one surface of the n-type semiconductor layer in contact with the active layer is vertical relative to the major surface of the n-type semiconductor layer.

7. (Previously Presented) The semiconductor light-emitting device of claim 5, wherein the n-type semiconductor layer comprises a gallium nitride layer; and,

wherein the major surface of the n-type semiconductor layer is a C plane of the gallium nitride layer.

8. (Previously Presented) The semiconductor light-emitting device of claim 6, wherein the n-type semiconductor layer comprises a gallium nitride layer; and,

wherein the surface of the n-type semiconductor layer that is vertical relative to the major surface of the n-type semiconductor layer is aligned with an A or M plane of the gallium nitride layer.

9. (Previously Presented) The semiconductor light-emitting device of claim 8, wherein the active layer comprises a plurality of M or A planes that intersect each other at angles of 30°, 60°, 90°, 120°, 150°, 210°, 240°, 270°, 300° or 330°, as viewed from an upper surface of the n-type semiconductor layer.

10. (Previously Presented) The semiconductor light-emitting device of claim 8, wherein the active layer has a M or A plane formed in a striped fashion as viewed from an upper surface of the n-type semiconductor layer.

11. (Canceled)

12. (Previously Presented) The semiconductor light-emitting device of claim 1, further comprising:

a first electrode formed on a surface of the n-type semiconductor layer exposed by etching the p-type semiconductor layer and the active layer; and

a second electrode formed on a surface of the p-type semiconductor layer.

13. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein the active layer emits light components having two or more different major peak wavelengths, and the light components are mixed to produce a color.

14-18 (Canceled)

19. (Currently Amended) The semiconductor light-emitting device of claim 1, wherein the recess is one of a plurality of recesses formed in the n-type semiconductor layer and arranged in a repetitively corrugated shape with back-to-back side face angles of 120° and 240°; and,

wherein each of the plurality of recesses has a bottom surface aligned with the major surface of n-type semiconductor layer and sidewalls having a different ~~planar~~ crystal orientation from the bottom surface.

20. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein the n-type semiconductor layer comprises a gallium nitride layer;

wherein the recess is one of a plurality of stripe-shaped recesses formed in the gallium nitride layer; and,

wherein each of the plurality of stripe-shaped recesses has a bottom surface aligned with a C-plane of the gallium nitride layer and sidewalls aligned with an M-plane or an A-plane of the gallium nitride layer.

21. (Previously Presented) The semiconductor light-emitting device of claim 1, wherein the recess is one of a plurality of triangle shaped recesses formed in the n-type semiconductor layer, as viewed from an upper surface of the n-type semiconductor layer.